

OSRAM BATTERYcharge 405 ESSENTIAL

OSRAM BATTERYcharge 405 ESSENTIAL Smart Battery Charger & Maintainer

Model: OEBCS405ESN

1. INTRODUCTION

This manual provides essential instructions for the safe and effective operation of your OSRAM BATTERYcharge 405 ESSENTIAL Smart Battery Charger & Maintainer. Please read this manual thoroughly before use and retain it for future reference. This device is designed to charge and maintain 6V and 12V vehicle batteries, including those found in motorcycles and most small vehicles.

2. IMPORTANT SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the device or vehicle:

- **Ventilation:** Ensure adequate ventilation when charging batteries to prevent the accumulation of explosive gases.
- **Correct Connection:** Connect the red positive (+) clamp to the positive (+) battery terminal and the black negative (-) clamp to the negative (-) battery terminal. The charger features reverse polarity protection.
- **Avoid Short Circuits:** Do not allow the battery clamps to touch each other or any uninsulated metal parts of the vehicle.
- **Moisture Protection:** Do not expose the charger to rain, snow, or excessive moisture. It is designed for indoor use or in a protected environment.
- **Children and Unauthorized Use:** Keep the charger out of reach of children. This appliance is not intended for use by persons with reduced physical, sensory, or mental capabilities unless supervised.
- **Disconnection Procedure:** Always disconnect the charger from the mains power supply before making or breaking connections to the battery.
- **Damaged Equipment:** Do not operate the charger if it has been dropped, damaged, or if the cables or clamps are compromised. Contact customer support for assistance.

3. PRODUCT OVERVIEW

3.1. Features

- **Battery Compatibility:** Suitable for a variety of 6V and 12V batteries, including Lithium, Lead-Acid, and AGM types.
- **Start/Stop System:** Compatible with vehicles equipped with Start/Stop technology.
- **User Interface:** Compact design with single-button operation and a clear LCD display for charge progress and voltage status.
- **Cable Length:** Total 3m cable length (1.5m power cable + 1.5m charging cable).
- **Safety Protections:** Equipped with intelligent protection against short-circuits, reverse polarity, overcharge, and overheating.
- **Capacity & Current:** Maximum battery capacity of 90Ah for charging and 140Ah for maintenance. Maximum charging current of 5A.
- **Multi-Stage Charging:** Features a 7-step charging cycle for Lithium batteries and a 9-step cycle for Lead-Acid/AGM batteries.
- **Automatic Maintenance:** Automatically enters a long-term maintenance mode once the battery is fully charged.

3.2. Components

The OSRAM BATTERYcharge 405 ESSENTIAL consists of the main charger unit, integrated power cable, and battery connection clamps.



Figure 1: OSRAM BATTERYcharge 405 ESSENTIAL Smart Battery Charger and Maintainer with its packaging and included battery clamps.



Figure 2: Close-up view of the charger's LCD display, indicating battery voltage and charge status.

4. SETUP

Follow these steps to correctly connect the charger to your vehicle's battery:

1. **Prepare Vehicle:** Ensure the vehicle's ignition is off and all electrical consumers (lights, radio, etc.) are switched off.
2. **Connect Positive Clamp:** Connect the red positive (+) clamp securely to the positive (+) terminal of the battery.
3. **Connect Negative Clamp:** Connect the black negative (-) clamp securely to the negative (-) terminal of the battery.
4. **Connect to Mains Power:** Plug the charger's power cable into a suitable 230V AC mains power outlet.
5. **Power On:** The charger will power on automatically and display the current battery voltage on the LCD screen.

5. OPERATING INSTRUCTIONS

The OSRAM BATTERYcharge 405 ESSENTIAL is designed for ease of use with intelligent automatic functions.

5.1. Automatic Operation

- Upon connection to a battery and mains power, the charger automatically detects whether it is a 6V or 12V battery.
- It then initiates the appropriate multi-stage charging cycle: a 7-step cycle for Lithium batteries or a 9-step cycle for Lead-Acid/AGM batteries.
- The LCD display will show the charging progress and the current battery voltage.

5.2. Mode Selection (if applicable)

While the charger operates mostly automatically, a single button allows for cycling through specific modes if manual selection is desired for certain battery types or conditions. Refer to the icons on the LCD display to understand the active mode.

5.3. Maintenance Mode

Once the battery reaches full charge, the charger automatically transitions into a long-term maintenance mode. This prevents overcharging and keeps the battery in optimal condition, making it suitable for

extended periods of connection.

5.4. Disconnection

To safely disconnect the charger:

1. Unplug the charger from the mains power outlet.
2. Remove the black negative (-) clamp from the battery's negative (-) terminal.
3. Remove the red positive (+) clamp from the battery's positive (+) terminal.

6. MAINTENANCE

Proper maintenance ensures the longevity and reliable operation of your charger:

- **Cleaning:** Keep the charger unit clean and dry. Wipe with a soft, damp cloth if necessary. Do not use abrasive cleaners or solvents.
- **Inspection:** Regularly inspect the cables, clamps, and casing for any signs of damage, wear, or corrosion. Do not use the charger if any components are damaged.
- **Storage:** Store the charger in a cool, dry place, away from direct sunlight, extreme temperatures, and corrosive materials. Ensure cables are neatly coiled to prevent damage.

7. TROUBLESHOOTING

If you encounter issues with your OSRAM BATTERYcharge 405 ESSENTIAL, refer to the following common problems and solutions:

- **Charger not turning on:**
 - Check that the power cable is securely plugged into a functional mains power outlet.
 - Ensure the battery clamps are correctly connected to the battery terminals.
- **Battery not charging:**
 - Verify that the battery clamps are securely attached to the correct battery terminals (positive to positive, negative to negative).
 - The battery might be severely discharged or damaged beyond recovery. In such cases, the charger may not initiate charging.
 - Ensure the selected mode (if manually overridden) is appropriate for the battery type.
- **Error message on display:**
 - If an error code or symbol appears, consult the full product manual for specific meanings. Common errors relate to incorrect battery connection (e.g., reverse polarity, which the device protects against) or an internal fault. Disconnect and reconnect the charger. If the error persists, contact customer support.
- **Charger feels hot during operation:**
 - Some heat generation is normal during the charging process. Ensure the charger has adequate ventilation and is not covered. If it becomes excessively hot, emits smoke, or unusual odors, immediately disconnect it from the mains and battery, then contact customer support.

8. TECHNICAL SPECIFICATIONS

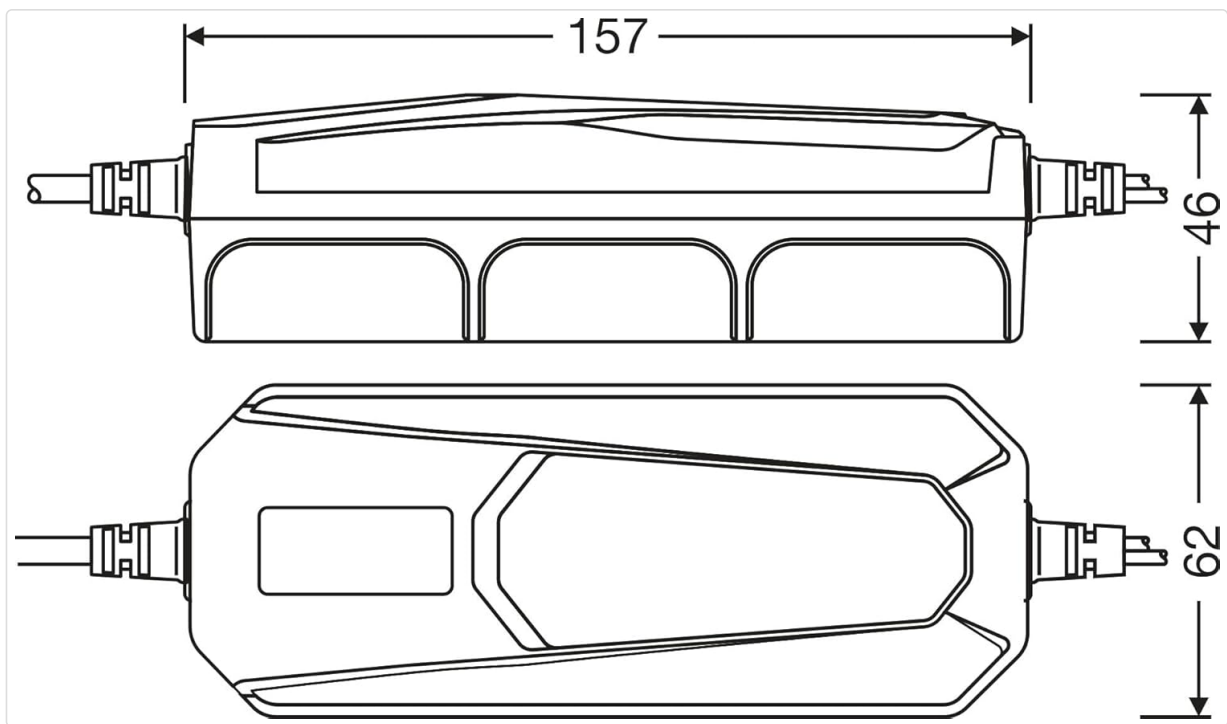


Figure 3: Dimensions of the OSRAM BATTERYcharge 405 ESSENTIAL charger unit.



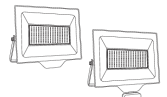


Specification	Value
Manufacturer	OSRAM
Model	BATTERYcharge 405 ESSENTIAL
Model Number	OEBCS405ESN
Item Weight	400 g
Product Dimensions (L x W x H)	15.7 x 4.6 x 6.2 cm
Output Voltage	6V / 12V (DC)
Max. Charging Current	5 A
Max. Battery Capacity (Charging)	90 Ah
Max. Battery Capacity (Maintenance)	140 Ah
Cable Length	3 m (1.5m power + 1.5m charge)
Safety Features	Short-circuit protection, Reverse polarity protection, Overcharge protection, Overheating protection
Certifications	CE

9. WARRANTY AND SUPPORT

The OSRAM BATTERYcharge 405 ESSENTIAL comes with a **2-year OSRAM guarantee**, ensuring quality and reliability. For technical support, warranty claims, or further assistance, please contact your local

OSRAM customer service or visit the official OSRAM website. Please have your model number (OEBCS405ESN) and proof of purchase available when contacting support.

Related Documents - BATTERYcharge 405 ESSENTIAL

<div><div><div>BATTERYcharge</div><div>Smart Battery Charger & Maintainer</div><div>904/906/908</div><div>BATTERYcharge 904</div></div><div></div><div><div>OSRAM</div></div></div>	<p>OSRAM BATTERYcharge Smart Battery Charger & Maintainer User Manual</p> <p>User manual for the OSRAM BATTERYcharge series (904, 906, 908), providing detailed instructions for smart battery charging and maintenance for automotive applications.</p>
<div><div><div>BATTERYstart</div><div>12V Lithium Starter</div><div>700 PRO</div><div>BATTERYstart 700 PRO</div></div><div></div><div><div>OSRAM</div></div></div>	<p>OSRAM BATTERYstart 700 PRO 12V Lithium Jump Starter - Portable Car Battery Booster</p> <p>The OSRAM BATTERYstart 700 PRO is a powerful 12V lithium jump starter for petrol and diesel vehicles. Features 650A peak current, 24,000mAh capacity, and advanced safety protections for reliable emergency starting.</p>
<div><div><div>FLOODLIGHT</div><div>ESSENTIAL</div></div><div></div><div><div>OSRAM</div></div></div>	<p>OSRAM Floodlight Essential Series: Technical Specifications and Installation Guide</p> <p>Comprehensive guide to the OSRAM Floodlight Essential series, detailing technical specifications, dimensions, weights, energy efficiency ratings, and installation instructions for both standard and sensor models. Includes product codes and safety information.</p>
<div><div><div>BATTERYstart</div><div>12V Lithium Starter</div><div>700 PRO</div><div>BATTERYstart 700 PRO</div></div><div></div><div><div>OSRAM</div></div></div>	<p>OSRAM BATTERYstart 700 PRO 12V Lithium Jump Starter User Manual</p> <p>User manual for the OSRAM BATTERYstart 700 PRO 12V Lithium Jump Starter. Provides detailed specifications, safety warnings, step-by-step jump starting procedures, charging instructions, and maintenance guidelines for this portable car battery booster.</p>
<div><div><div>TYREInflate</div><div>6000</div></div><div></div><div><div>OSRAM</div></div></div>	<p>OSRAM TYREInflate 6000 Digitaler Reifenfüller und Luftpumpe Produktdatenblatt</p> <p>Umfassendes Produktdatenblatt für den OSRAM TYREInflate 6000 (OTIR6000), einen kabellosen, wiederaufladbaren digitalen Reifenfüller mit Li-Ion Akku. Enthält technische Spezifikationen, Funktionen wie automatische Stopp-Funktion und Luftablassventil, sowie Informationen zu Anwendung, Umwelt und Verpackung.</p>

TYREinflate 2000
Compact rechargeable tyre inflator with Powerbank and light function¹⁾



Net weight	1.2 kg
Gross weight	1.5 kg
Dimensions (H x W x D)	100 x 50 x 30 mm
Max. pressure	3.0 bar
Max. volume	2.0 l
Max. current	2.0 A
Max. power	10 W

OSRAM

[OSRAM TYREinflate 2000: Compact Rechargeable Tyre Inflator with Powerbank and Light](#)

The OSRAM TYREinflate 2000 is a versatile, rechargeable tyre inflator featuring a built-in power bank and LED light. Ideal for cars, motorcycles, and bicycles, it offers easy pressure setting, multiple units (PSI, BAR, KPA), and auto-stop functionality.